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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Agriculture and Veterinary Medicine, The Research Center for Protozoan Molecular Immunology; Inadacho Nishi 2 Sen 13, Obihiro, Hokkaido 080-8555, Japan (E-mail:009013@obihiro.ac.jp, Tel:81-155-49-5647, Fax:81-155-49-5643)
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Ikadai, H., Xuan, X., Igarashi, I., Tanaka, T., Abgaandorjiin, A.,
Inoue, N., Nagasawa, H., Fujisaki, K., Mikami, T., Toyoda, Y. and
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J. Clin. Microbiol. 37 (11), 3475-3480 (1999)
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AFILFKESDANPANSTERFFWARFRRCKNHSYEHDLVENLLEKNYTROADATDIENFA
AFILFKESDANPANSTERFFWARFRRCKNHSYEHDLFGMGIKRALKQIIRSNLPLDIGTE
HSYSTLYHTYTYTYDEFGASFFNNLSFTTGLFGMGIKRALKQIVDTPMYXKWYMK
LKNFMVNRYFIPTKKFFWAETREPSKALKEKYSTDTKDLFENNIGQGTVDFFNNEIRD
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Db		AGGCCGCATTTATACTCTTCAAGGAGAGTGACGCTAATCCGGCCAATAGCACTGAGAA
Qy	121	rgPheTrpMetArgPheArgArgGlyLysAsnHisSerTyrPheHisAspLeuValPh
дb	399	CGCTTCTGGATGCGTTTCAGAAGGGGCAAGAACCACAGTTACTTCCACGACTTAGTCTTC 458
Qy	141	snLeuLeuGluLysAsnValThrArgAspAlaAspAlaThrAspIleGluAsnPheAl
ф	459	AATCTGCTGGAGAAGAACGTGACTCGCGACGCGGATGCTACTGACATTGAGAACTTTGCG 518
Qy	161	erArgTyrLeuTyrMetAlaThrLeuTyrTyrLysThrTyrThrAsnValAspGluPh
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Db	579	GGTGCTAGCTTCTTTAACAAGTTGTCTTTCACTACTGGGTTGTTCGGCTGGGGCATCAAG 638
Qy		rgAlaLeuLysGlnIleIleArgSerAsnLeuProLeuAspIleGlyThrGluHisSe
ф	639	AGGCACTTAAGCAGATTATTCGCTCTAACCTGCCCCTTGACATCGGGACAGAACACAGC 698
Qy	221	SerTyrLysAspTyrMetAspThrGlnIlePr
Dъ	699	TCAGTCGCCTGCAGCACATTACGAGCAGTTACAAGGATTACATGGATACGCAGATT
Qy	241	ProLysPheAlaLysArgPheSerLeuMetValValGlnArgLeuLeuAlaTh
DЪ		CACTGCCCAAGTTTGCGAAGCGTTTCTCCCTTATGGTAGTGCAGAGGCTGCTGGCCA
Qy	261	rValAspThrProTrpTyrLysLysTrpTyrMetLysLeuLysAs
Db	819	GGCTGGTTACGTCGACACCCCGTGGTATAAGAAGTGGTACATGAAGCTGAAGAACT
Qy		MetValAsnArgValPheIleProThrLysLysPhePheAsnLysGluIleArgGluPro 300
Ф	879	TGGTGAACAGGGTGTTCATTCCTACAAAGAAGTTCTTCAATAAGGAAATTCGTGAGCC
Qy		uLysGluLysValSerThrAspTh
ф	939	GTAAGGCATTAAAAGAAAAGGTGTCAACCGACACCAAGGATTTATTCGAGAACAAA
Qy	321	lAspPhePheAsnLysGluIleArgAspProSerLysAlaLeuLy
Ф	999	GGCAGGGTACTGTGGACTTCTTCAATAAGGAAATTCGTGACCCTAGTAAGGCA
Qy	341	AspAlaLysAspLeuPheGluAsnLysIleGlyGlnGlyThrV
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рь		ACTTCATCAATAACGAAATTCGTGACCCTAGTAAGGCATTAATAAGAAAAGTGTCA
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Kappmeyer,L.S. and Knowles,D.P.
Direct Submission
Submitted (18-SEP-1998) Agricultural Research Service,
Department of Agriculture, 337 Bustad Hall, Washington
University, Pullman, WA 99164-7030, USA
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                     Kappmeyer,L.S., Perryman,L.E., Hines,S.A., Baszler,T. Hennager,S.G. and Knowles,D.P. Detection of equine antibodies to babesia caballi by caballi rhoptry-associated protein 1 in a competitive enzyme-linked immunosorbent assay J. Clin. Microbiol. 37 (7), 2285-2290 (1999) 99294770
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/protein_id="AAD40981.1"
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                                                                                                                                                                                                                                                                                                                                                    ValSerArgLeuGlnHisIleThrSerSerTyrLysAspTyrMetAspThrGlnIlePro
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                                                                                                                                                                                                                                                                                                                                                                                                                                SerArgTyrLeuTyrMetAlaThrLeuTyrTyrLysThrTyrThrAsnValAspGluPhe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CTTAAGTACCCTCTTGAGGCTAAGTACCAACCGCTGACCCTTCCTGACCCCTACCAGTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                LeuLysTyrProLeuGluAlaLysTyrGlnProLeuThrLeuProAspProTyrGlnLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AlaSerValSerAlaTyrMetSerArgCysAlaLysGlnAspCysLeuThrLeuGlnSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AGGGCACTTAAGCAGATTATTCGCTCTAACCTGCCCCTTGACATCGGGACAGAACACAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TCCAGGTACCTGTACATGGCCACGCTTTACTACAAGACGTACACGAATGTTGATGAGTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GCTTCCGTTAGCGCATACATGAGTCGCTGCGCTAAACAGGACTGCCTGACTCTCCAAAGT
                                 1348
                                                                           1288
                                                                                                 360
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418 AspAspLeuPheGluAsnLysIleGlyGlnGlyThrValAspPheIleAsnLysGluIle 437	
399 AsnAsnGluIleArgAspProSerLysAlaLeuIleArgLysValTyrThrGluAla 417    :::: :: :::       ::::	Qy  Out the Notice of the Control of
379 SerThrGlyAlaGluAspLeuPheGluAsnLysIleGlyGlnGlyThrValAspPheIle 398	21 ValAspSerAlaAlaAsnAlaTyrMetIleAsnSerAspMetSerAspTyrLeuSerAla 40
359 ThrValAspPheIleAsnAsnGluIleArgAspProSerLysAlaLeuIleArgLysVal 378	Y 1 MethlaProSerAspSerValGlyAspValThrLysThrLeuLeuAlaAlaSerGluSer 20
340 LysGluLysValSerAsnAspAlaLysAspLeuPheGluAsnLysIleGlyGlnGly 358	6 Gaps: -807-459-2 (1-458) x A16430 (1-1542)
<b>&gt;</b> → H	Hatch: 153  Matches: 153
301 SerLysAlaLeuLysGluLysValSerThrAspThrLysAspLeuPheGluAsnLys 319	366 c 343 g 378 t
281 MetValAsnArgValPheIleProThrLysLysPhePheAsnLysGluIleArgGluPro 300 	
261 ValAlaGlyTyrValAspThrProTrpTyrLysLysTrpTyrMetLysLeuLysAsnPhe 280 :::	KHGDYHRELIGILLAKGYTRKOGATDLEELVIKLIYMATTYKTYLIVANSDAKFINKK QY AFATKIFGFGIKKALKDIVRSNYPEYMGEHSIERISHLAHGYKTYLIVNNSDAKFINKI AFATKIFGFGIKKALKDIVRSNYPEYMGEHSIERISHLAHGYKDYMLTOVPTLSKEAE RYSDMYRKYLLSSLAGYYKAPWYKRWFNKVKDFFVNKIGKPTKEHFHKKHPRTAEFFD
241 AlaLeuProLysPheAlaLysArgPheSerLeuMetValValGlnArgLeuLeuAlaThr 260 	/PIUCETH_LU- CANULES.I. QY /db_xref="GI:511980" /translation="MRAISSVVGCAFWLVAGSTYAIRHQQQAANLAPAEVVGNVAATL STADELISSHHYDRELINDMRDQMREMGENEVDTVCTKAPEDSNCRQMVALYADRCEM VGT\GTNNVNTVEVTTELNDMRDGNEENGENEVDTVCTKAPEDSNCRQMVALYADRCEM VGT\GTNNVNTVEVTTELNDMREMGENEVDTVCTKAPEDSNCRQMVALYADRCEM
221 ValSerArgLeuGlnHisIleThrSerSerTyrLysAspTyrMetAspThrGlnIlePro 240 :::    :::    :::    748 ATTGAACGCATTAGTCATTTGGCCCACGGTTACAAGGACTACATGTTGACCCAAGTTCCA 807	CDS 1.1542 Qy  /codon_start=1 /product="2184/rhoptry homologue" /protein if="224/rhoptry homologue"
201 ArgAlaLeuLysGlnIleIleArgSerAsnLeuProLeuAspIleGlyThrGluHisSer 220 :::	ce 1.1542  // June 1993;  ce 1.1542  // June 1993;  ce /organism Babesia ovis*
181 GlyAlaSerPhePheAsnLysLeuSerPheThrThrGlyLeuPheGlyTrpGlyIleLys 200 	REFERENCE 1 (bases 1 to 1542) AUTHORS TITLE BABESIAL ANTIGENS JOURNAL PARENT WO 9314704 & 9 72-777-1902
161 SerArgTyrLeuTyrMetAlaThrLeuTyrTyrLysThrTyrThrAsnValAspGluPhe 180 ::::::	SOURCE Babesia ovis. Qy ORGANISM Babesia ovis Eukaryota; Alveolata; Apicomplexa; Piroplasmida; Babesidae; Db
141 AsnLeuLeuGiuLysAsnValThrArgAspAlaAspAlaThrAspIleGluAsnPheAla 160 	DEFINITION (Lambda EMBL3 #5) genes 1-4 encoding 21B4/rhoptry homologues. Op VERSION A16430 DEFINITION (Albert Market Mar
121 ArgPheTrpMetArgPheArgArgGlyLysAsnHisSerTyrPheHisAspLeuValPhe 140	SULT 3 6430
Glualaalaphotlofonphotuscoluscaracalaaacacacatacatacalaacacacaacacaac	Oy 421 PheGluAsnLysIleGlyGlnGlyThrValaspPheIleAsnLysGluIleArgAspPro 440
	QY 401 GluIleArgAspProSerLysAlaLeuIleArgLysValTyrThrGluAlaAspAspLeu 420
61 AlaSerValSerAlaTyrMetSerArgCysAlaLysGlnAspCysLeuThrLeuGlnSer 80	Db , 1349 GCGCCGAGGATTTATTCGAGAACAAAATTGGGCCAGGGTACTGTGGACTTCATCAATAAC 1408